

EU - Material Safety Data Sheet (EN)

1.1 Trade name: Vacuum oil **LABOVAC 13**

1.2 Supplier: **Gardner Denver Thomas GmbH**
Am Vogelherd 20
98693 Ilmenau
Germany

T +49 3677 604 0
F +49 3677 604 131
welch-ilmvac@gardnerdenver.com
www.ilmvac.com

1.3 Duty goods transport number: CN code: 3907 2099
Description: perfluoropolyether liquid,
with a density qcm of about 1.9 g / at 20 ° C.

2. Composition:

2.1 Chemical Characteristics:

Trade name: Regenerated PFPE 6/6, 14/6, 25/6, (3/6, 6/14, 12/25 V)
Chemical name: perfluorinated polyether
Molecular weight: 1,800, 2,500, 3,300 g / mol
Structural formula: CF 3 - (O-CF (CF3)-CF2) n - (O-CF 2) m - O-CF3
CAS Name: 1-Propene, 1,1,2,3,3,3,-hexafluoro-, oxidized, polymerized
CAS Nummer: 69991 - 67 bis 9
EEC number: not assigned
EINECS number: not assigned
ELINCS number: not assigned

2.2 Hazardous Ingredients: Substances which are classified as hazardous above the
Concentration, classified according to the applicable guidelines / standards
are to be named:

Name	Concentration	CAS-No.	Icon	R – Sets
------	---------------	---------	------	----------

3. Hazards:

With proper handling of the substance is not a threat to humans and the environment expected. A hazard is the only in cases of abuse or use in case thermal decomposition - development of toxic and corrosive gases possible.

With continued contact of the substance with the skin or eyes, or after swallowing large quantities of the occurrence of the following symptoms are possible:
Redness of skin and eye contact Abdominal pain, dizziness, vomiting if swallowed

4. First Aid Measures:

After eye contact: Rinse with plenty of water for at least 15 minutes
After skin contact: Wash with water and soap
Ingestion: Drink water, induce vomiting, seek medical attention

5. Fire-fighting measures:

Extinguishing media: Water, Dry powder, foam, carbon dioxide
Vulnerability: The heating of the substance may lead to a decomposition into toxic and corrosive gases (HF and COF2).
In case of fire: Keep your distance and wear suitable protective equipment.

EU - Material Safety Data Sheet (EN)

Containers cool by spraying with water.

Special protective equipment: Respirators, Protective clothing to protect the skin from corrosive vapors RF

6. Accidental Release Measures: Possible risks to humans and the environment in the case of a release through leakage or spillage consists solely on thermal Decomposition.

Personal precautions: Wear personal protective equipment (see section 8),
Release finish.

Environmental precautions: The release of the substance, especially in surface water, ground water and waste water, and soils should be avoided.

Cleaning method: Shooting with the aid of suitable binder such as clay, or sawdust and disposed of in appropriate containers.

7. Handling and storage:

Dangers involved: No, under normal use.

How to Handle: Wear personal protective equipment (see section 8), smoking, Dining set.

Not heated above 290 ° C (decomposition !!!)

Storage Information: Keep containers closed and away from heat sources and flammable, explosive, and incompatible materials (see also Chapter 10)

Packaging material: suitable containers made of metal, glass and plastic

8. Exposure controls and personal protective equipment:

Exposure Limits: no

In case of thermal decomposition, the following limits
TLV/TWA:

Hydrogen fluoride, hydrofluoric acid = HF =: 2.6 mg/m³

Carbonyldifluorid = COF₂: 5.4 mg/m³

Additional information: wear personal protective equipment, do not breathe vapors from thermal decomposition.

Personal protective equipment:

Safety goggles and rubber gloves as well as overalls or rubber apron

Respiratory protective equipment in case of fire

9. Physical and chemical properties:

Form: clear liquid

Color: colorless

Odor: odorless

Boiling point: > 270 ° C (at 760 mm Hg)

Flammability: nonflammable

Danger of explosion: not explosive

Viscosity: about 30, 60, or 95 mm² / s at 40 ° C DIN 51562, T 01

Vapor pressure: <2 x 10⁻¹ Pa , DIN 28426

Density: 1,88 / 1,90 / 1,90 g/cm³

Solubility in water: not soluble

Solubility in organic solvents:

EU - Material Safety Data Sheet (EN)

soluble in fluorinated solvents

10. Stability and reactivity:

Stability: stable and operating conditions - under normal storage
Conditions to avoid: heating above the decomposition temperature of 290 ° C or exposed to open flames
Materials to avoid: contact with strong alkali, non - aqueous compounds, lewis - acids (AlCl₃, SbF₅, CoF₃) above 100 ° C and finely powdered magnesium, aluminum and their alloys avoid about 200 ° C
Hazardous decomposition products: The PFPE may decompose at temperatures above 290 ° C producing toxic and corrosive fluorine-containing pyrolysis - products.

11. Toxicological Information:

Routes of exposure: Ingestion, skin and eye contact
Adverse effects: The following information relates to the internal and / or external influence from short and / or prolonged duration and that it occurred immediately or delayed and chronic effects:
Irritation: not determine
Sensitization: not determine
Chronic Toxicity: not determine
Carcinogenicity: not determine
Mutagenicity: not determine
Toxic for reproduction: not determine

Experimental Toxicology: LD₀ (oral, Ratte) > 15000-25000 mg/kg
LDL₀ (peritoneal, Ratte) > 25000 mg/kg
TDL₀ (oral, 6 Tage, Ratte) = 10000 mg/kg
LDL₀ (dermal, 24 h, Kanin.) > 0,38 mg/m²
LCL₀ (Inhalation, 4h, Ratte) > 2000 mg/kg

12. Ecological:

Environmental precautions: The product should be handled properly.
The release should be avoided.

Experimental data: Degradability: unavailable
Mobility: unavailable
Ecotoxicity: slightly hazardous for water

13. Disposal instructions:

Hazards of waste disposal: no identifiable risk
Product Disposal: in high temperature incinerators for burning suitable fluorine compounds
Disposal of packaging: to approved landfills, according to law

EU - Material Safety Data Sheet (EN)

14. Transport regulations:

Risks during transport:	no hazards resulting from material	
Transport classifications:	U.N. number:	not assigned
	Packaging group:	not assigned
	Road (ADR):	not classified
	Rail (RID/RMP):	not classified
	Sea (IMDG/IMO):	not classified
	Air (ICAO / IATA):	not classified

15. Regulations:

Code letter:	WGK Id number: 6526
Labeling:	Trade name: in 1.1
Marking:	not necessary
Danger symbol:	not necessary
R-phrases:	not necessary
S-phrases:	not necessary

Bibliography:
Proprietary representation

The above information is based on our present knowledge.
They relate to the safety issues and are not a guarantee of characteristics.
The supplier is not responsible for accidents caused by improper use of the product.
Currently existing laws and regulations must be observed by the user.